

INTEGRATED CIRCUIT DEVICE AND METHOD THEREFOR

Abstract of the Disclosure

5 A semiconductor device has recesses formed in the substrate during removal of the anti-reflective coating (ARC) because these recess locations are exposed during the etching of the ARC. Although the etchant is chosen to be selective between the ARC material and the substrate material, this selectivity is limited so that recesses do occur. A problem associated with the formation
10 of these recesses is that the source/drains have further to diffuse to become overlapped with the gate. The result is that the transistors may have reduced current drive. The problem is avoided by waiting to perform the ARC removal until at least after formation of a sidewall spacer around the gate. The consequent recess formation thus occurs further from the gate, which results in
15 reducing or eliminating the impediment this recess can cause to the source/drain diffusion that desirably extends to overlap with the gate.